

EPR Spectra of VO^{2+} Doped Ammonium Oxalate Monohydrate Single Crystals

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Z. Naturforsch. **54 a**, 370–374 (1999); received April 13, 1999

The EPR spectra of VO^{2+} ions in ammonium oxalate monohydrate, $[(\text{NH}_4)_2\text{C}_2\text{O}_4 \cdot \text{H}_2\text{O}]$, single crystals have been studied at room temperature and at 113 K in mutually three perpendicular planes. The spin Hamiltonian parameters are determined using a numerical technique together with a trial and error procedure to resolve the single crystal spectra. The parallel and perpendicular components of axially symmetric \mathbf{g} and hyperfine tensors for VO^{2+} ion in ammonium oxalate monohydrate single crystal are determined, and the results are discussed.

Key words: EPR; $(\text{NH}_4)_2\text{C}_2\text{O}_4 \cdot \text{H}_2\text{O}$; VO^{2+} ; Ammonium Oxalate Monohydrate.